WHAT IS CLAIMED IS:

1. A semiconductor device, comprising

a trench formed in a substrate:

a diffusion region surrounding the trench to form a buried plate;

a first conductive material formed in the trench and connecting to the buried plate through a bottom of the trench to form a first electrode;

a second conductive material disposed in the trench to form a second electrode; and

a node dielectric layer formed between the first electrode and the second electrode.

2. The semiconductor device as recited in claim 1, wherein the first conductive material is formed into a plurality of pillars extending from the bottom of the trench.

3. The semiconductor device as recited in claim 2, wherein the plurality of pillars includes the second conductive material disposed between the plurality of pillars.

4. The semiconductor device as recited in claim 1, wherein the first conductive material includes one of a doped polysilicon and a doped amorphous silicon.

5. The semiconductor device as recited in claim 1, wherein the second conductive material includes doped amorphous silicon.

6. The semiconductor device as recited in claim 1, wherein the second conductive material is disposed between the first conductive material and the buried plate.

7. A method for forming a trench capacitor, comprising,

providing a trench in a semiconductor substrate;

forming a dopant rich layer in contact with the substrate in the trench;

forming a spacer layer over the dopant rich layer in the trench;

exposing the substrate at a bottom of the trench;

forming a first doped conductive material in the trench;

etching the first doped conductive material to form at least one pillar which extends from a bottom of the trench;

driving dopants into the substrate from the dopant rich layer and the first doped conductive material to form a buried plate such that the buried plate and the first doped conductive material form a first electrode;

removing the dopant rich layer;

forming a dielectric layer over the substrate in the trench and over the first doped conductive material; and

forming a second conductive material in the trench over the dielectric layer to form a second electrode.

8. The method as recited in claim 7, wherein the dopant rich layer include doped TEOS.

9. The method as recited in claim 7, wherein the step of etching the first doped conductive material includes performing an anisotropic etch to form a gap between portions of the first doped conductive material to form a plurality of pillars.

10. The method as recited in claim 7, wherein the first doped conductive material includes one of a doped polysilicon and a doped amorphous silicon.

11. The method as recited in claim 7, wherein the second conductive material includes doped amorphous silicon.

12. The method as recited in claim 7, wherein the step of driving dopants includes annealing the substrate in an inert environment.

13. The method as recited in claim 7, wherein the step of forming a dielectric layer includes forming a nitride layer.

14. The method as recited in claim 13, further comprising the step of oxidizing the nitride layer.

15. The method as recited in claim 7, wherein the step of forming a dopant rich layer includes forming the dopant rich layer with a thickness of about one quarter of a width dimension of the trench.

16. A method for forming a trench capacitor, comprising,

providing a trench in a semiconductor substrate;

forming a dopant rich layer in contact with the substrate in the trench;

forming a spacer layer over the dopant rich layer in the trench;

exposing the substrate at a bottom of the trench by removing the spacer layer and the dopant rich layer from the bottom of the trench;

depositing a first doped conductive material in the trench and recessing the first doped conductive material into the trench;

etching the first doped conductive material to form two pillars which extend from a bottom of the trench;

driving dopants into the substrate from dopant rich layer and the first doped conductive material to form a buried plate such that the buried plate and the first doped conductive material form a first electrode;

removing the dopant rich layer;

forming a dielectric layer over the substrate in the trench and over the first doped conductive material; and

forming a second conductive material in the trench over the dielectric layer to form a second electrode.

17. The method as recited in claim 16, wherein the step of forming a dopant rich layer includes forming the dopant rich layer with a thickness of about one quarter of a width dimension of the trench.